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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,466	10/26/2001	Tae-Sung Jung	678-765 (P9938)	4005

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Uniondale, NY 11553

EXAMINER

LE, DANH C

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,466

Applicant(s)

JUNG, TAE-SUNG

Examiner

DANH C LE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8 is/are rejected.
- 7) ☒ Claim(s) 7 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 8 are rejected under 35 U.S.C. 102(a) as being anticipated by Barnes (US 6,711,147).

As to claim 1, Barnes teaches a handover method in an mobile communication system (figure 4 and col.9, 39-col.11, line 35) that includes a mobile node (12) having a mobile Internet Protocol address, a first foreign agent (272) for wirelessly communicating with the MN in the area where the MN is located, a home agent (270) for registering the location of the MN, a router connected to the HA, and a corresponding node (276) connected to the router (274) for communicating with the MN for performing IP tunneling with the first FA, the router transmitting IP tunneling information to the first FA through the HA the method comprising the steps off:

transmitting a Binding Update message including the IP address of a second FA and an acknowledgement request to the first FA by the second FA, when a handover occurs as the MN moves from the area of the first FA to the area of the second FA adjacent to the first FA, and

transmitting a Binding Acknowledge message including a information of the IP tunneling capability of the router to the second FA in response to the Binding Update message by the first FA.

As to claim 2, Barnes teaches the handover method of claim 1, further comprising the step of registering the location information of the MN to the second FA wirelessly communicating with the MN during the handover (col.9, lines 39-45 and col.13, lines 40-49).

As to claim 3, Barnes teaches the handover method of claim 1, further comprising the step of transmitting a Binding Waming message to the HA by the first FA during the Handover (col.10, lines 9-17).

As to claim 4, Barnes teaches the handover method of claim 1, further comprising the step of updating the location information of the MN by transmitting a Registration Request message to the HA by the second FA after receiving the Binding Acknowledge message (col.9, lines 39-45 and col.13, lines 40-49).

As to claim 5, Barnes teaches the handover method of claim 4, further comprising the step of transmitting the Binding Update message to the router by the HA to notify the router of movement of the MN when the location information of the MN is updated (col.10, lines 26-49).

As to claim 6, Barnes teaches the handover method for a mobile node having a mobile IP address in a source foreign agent (figure 4, 272 and col.9, 39-col.11, line 35) of a mobile communication system, comprising the steps of:

transmitting a Binding Warning message to a home agent (HA) if the MN moves to the target FA with a data transmission/reception path established in the area of the source FA; and

transmitting a Binding Acknowledge message to the target FA including an P tunneling status value upon receipt of a Binding Update message from the target FA, and releasing an established IP tunnel between the source FA and a core network.

As to claim 8, Barnes teaches the handover method for an MN having a mobile IP address in a target (figure 4, 284, and col.9, 39-col.11, line 35) of a mobile communication system, comprising the steps of:

transmitting a Binding Update message to a source FA upon receipt of a Registration Request message from the IMN requiring a handover,

transmitting the Registration Request message to an HA for the MN upon receipt of a Binding Acknowledge message from the source FA, and

establishing a radio channel between the MN and the target FA and exchanging data on a radio channel.

Allowable Subject Matter

3. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 7, Barnes et al (US 6,711,147) teaches the merge packet service and mobile internet protocol. Leung (US 6,195,705) teaches the mobile IP mobility agent standby

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protocol. Chang et al (US 6,487,406) PCS to mobile IP internet working. Ahmed et al (US 6,160,804) teaches the mobility management for a multimedia mobile network.

The teaching of above prior arts either alone or in combination fails to teach the Binding Acknowledge message comprises type information (Type), a field R indicating the capsulation capability of a router connected to the CN to which the MN connects a call, a status, the home address of the MN (Mobile Node Home Address), and ID.

As to claim 7, Barnes et al (US 6,711,147) the merge packet service and mobile internet protocol. Leung (US 6,195,705) teaches the mobile IP mobility agent standby protocol. Chang et al (US 6,487,406) PCS to mobile IP internet working. Ahmed et al (US 6,160,804) teaches the mobility management for a multimedia mobile network.

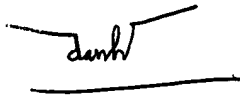
The teaching of above prior arts either alone or in combination fails to teach the Binding Update message comprises type information (Type), a field indicating the time period for which the MN is registered (Life time), Mobile Node Home Address, the address of the target FA (Care-of Address), ID, and an acknowledgement requesting.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C LE whose telephone number is 703-306-0542. The examiner can normally be reached on 8:00AM-5:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Danh C.Le



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